

ER-7-9508A

44R 11 1956

The Honorable James E. MURRAY
 Chairman
 Committee on Interior and Insular Affairs
 United States Senate
 Washington, D. C.

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 DATE: 2/12/91 REVIEWER:

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Dear Senator Murray:

This letter is in reply to your request of 21 February 1956 for additional information on titanium in the USSR and its Satellites.

I appreciate your requirement for unclassified information on titanium metal production and use in the Soviet Bloc. A review of Soviet policy regarding nonferrous metals, of which titanium is one, reveals that the Council of Ministers has declared information on reserves and extraction of all nonferrous metals to be "a state secret, the divulgence of which is punishable by law." (*Izvestiya*, 10 June 1947) This policy has actually been in effective operation since the mid-1930's. The result is that the Soviets have released no information on the status of its titanium industry, and only recently have released scientific publications dealing with the theoretical aspects of the metal. In the directives of the Communist Party of the Soviet Union on the Sixth Five-Year Plan objectives, the only reference made to titanium is that "prospected deposits" are to be "increased 40 - 45 percent." Mr. Khrushchev in a speech to the 20th Party Congress on 14 February 1956 mentioned that, in the next ten years, production of titanium, along with aluminum and magnesium, is to be developed in Siberia. These references shed very little light on the question of Soviet production and use of titanium metal.

The American Metal Market statement, issue of 27 January 1956, that Soviet Russia may be producing 90,000 to 95,000 tons of titanium annually has been traced to a source in the U.S. Bureau of Mines. The basis for the statement is the theoretical quantity of titanium that could be extracted from the titaniferous iron ore (ilmenite) mined in the Urals area. A Soviet metallurgical journal, published in 1934, states that the ilmenite contains 54 percent iron, 14 percent titanium dioxide, and 0.6 percent vanadium pentoxide. The costs of processing such lean and refractory ore for its titanium

content would be excessively high based on U.S. experience.

Since 1952, several articles on titanium have appeared in Soviet scientific publications. Among them is an article by I. I. Kornilov, "Titanium, Its Properties, Application, and Methods of Preparation," in *Uspekhi Khimii* (Progress of Chemistry), Vol. XXIII, No. 5, 1954. Another article by Kornilov, "Solubility of Chemical Elements in Titanium" was published in the May-June 1954 issue of *Investiya Akademii Nauk* (Bulletin of the Academy of Sciences). Published in *Investiya Akademii Nauk SSSR, Otdel Tekh. Nauk* (Bulletin of the Academy of Sciences USSR, Division of Technical Sciences), No. 3, 1954, is an article by L. N. Sokolov, V. P. Yalyutin, and V. I. Zolotarev, "Research into the Plastic Properties of Technical Titanium." Kornilov's bibliography, incidentally, consists almost exclusively of reference materials of U.S. or other Free World origin. It is quite apparent from these titles and all other available literature that the Soviets are engaged in research on titanium metal, but such sources contain no information indicating that they are in fact extracting any of the titanium contained in their ilmenite or any other ores. Moreover, no evidence of the use of titanium metal in Soviet aircraft or in any other application has been found.

In recognition of the seriousness of the situation resulting from the paucity of information on titanium production and use in the Soviet Bloc, this Agency convened a meeting of titanium specialists from various other interested Government agencies. The consensus of the group was that there existed a Government-wide shortage of information on Soviet titanium developments. It was also unanimously agreed that the extreme degree of secrecy covering titanium information reflects the importance placed on titanium by the Soviets.

You may be assured that we are giving serious attention to your request, and will furnish you with new information as it becomes available.

Sincerely,

CLAREN

Allen W. Dulles
Director

CONCURRENCES:

STAT

STAT

Inspector General

STAT

Deputy Director/Intelligence

*To be hand carried
by Leg. Counsel 2/6/56
w/ explanation that while
this is unclassified, the source
should not reveal this info.*

29 Feb
Date

Date

1 Mar.
Date

*CC: wondered if this
should be classified
Haverston thought it not
a matter of security of the
CIA but of the source.*

7-9508

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United States Senate

COMMITTEE ON
 INTERIOR AND INSULAR AFFAIRS

February 21, 1956

The Honorable Allen W. Dulles
 Director
 Central Intelligence Agency
 2430 E Street, N. W.
 Washington, D. C.

Dear Mr. Dulles:

Thank you for your letter of February 18th relative to titanium in Russia.

I appreciate your offer to keep me informed as new information becomes available. As I am gathering this material for a report I want only such information as is unclassified, and, in fact, I do not see why any information on titanium metal production in Russia should be classified. Considering our own limited production and use, it seems to me the American people should know if Russian production and use is greater than ours. There should be some way of reasonably confirming or disproving the report you mention that Russian production of titanium metal amounts to 95,000 tons per year as, as you are aware, the principle use of titanium is in military aircraft.

Sincerely yours,



JAMES E. MURRAY
 Chairman

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SUSPENSE: 27 Feb. 56 ER-7-9508

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FROM		INITIALS	DATE
1	Legislative Counsel	<i>MS Pic</i>	23 Feb. 56
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CONCURRENCE ☐ **RECOMMENDATION** ☐ **FILE** ☐

REMARKS: For preparation of reply for DCI
signature. Please send it back through
me for concurrence.

Norman S. Paul
Legislative Counsel